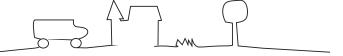




Introduction



Dear Customer,

You have just taken possession of your new CAMPING-CAR

We thank you for your order and congratulate you on your choice.

We suggest that you get to know your new camping car by reading this manual, and hope that you are fully satisfied with it.

This user's manual gives you all the information you need about the equipment in the living compartment and precautions to be taken and instructions to be followed in using it. For information about the basic chassis, please refer to the instructions and recommendations given by the manufacturer.

Follow our advice and leave without any worries.

Your leisure dealer will also be pleased to advise you and share his experience with you, in particular on safety or regulation equipment in your country and/or in the country you would like to visit. (safety vests, triangle(s), etc.

Do not hesitate to call him for any reason.

Good reading and happy motoring!

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CHAP. II

Preparation before leaving





A camping car has two separate parts; firstly the basic vehicle or carrier that provides the transport, and secondly the living compartment in which you will spend your holidays.

You should make a few standard verifications on both of these components before leaving.

■ CARRIER PREPARATION:

You should make the same verifications on the carrier before you leave as you would normally do for your car. This includes routine verifications, namely checks on the levels of your engine oil, cooling circuit water, windscreen washer fluid, and that all parking lights and indicators are working, without forgetting to adjust the two outside rear view mirrors that are very useful considering the width of the vehicle.

It is very important to check the level of the electrolyte in batteries that contain electrolyte (see chapter on battery maintenance).

Obviously, the tire pressure should be checked.

■ PREPARING THE LIVING COMPARTMENT (outside):

The first thing to do before you leave is to switch on the electricity power supply to the living compartment. A motor home has two batteries, one supplying the carrier (engine) and a second supplying the electrics in the living compartment.

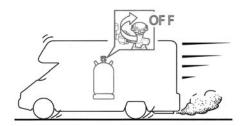
The battery is located in a specific compartment.

The motorhome is further prepared for use by positioning the gas bottles (2 13kg bottles, PROPANE only; one bottle only on certain models) in an externally-accessed watertight locker. Gas bottles must be turned off when vehicle is in motion...

\triangle

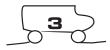
When driving, gas cylinders must be closed.

Pictograms are placed in the appropriate location to remind you of this.



The clean water tank is filled through an external orifice marked by a specially identifiable pictogram to distinguish it from the fuel tank on your basic vehicle.

Any covers or plugs on air intakes or orifices on all household appliances should be removed.



Preparation before leaving





Blanking pieces for the refrigerator grills are supplied as an option by your sales outlet.

The WC cassette also needs to be put into service by adding a dose of the appropriate chemical without forgetting to add little water.

This operation is done through the outside door (access flap), but can also be done very easily from inside the living compartment.

When you have finished all operations outside your camping car, you can start the operations to be done inside the living compartment.

■ PREPARING THE LIVING COMPARTMENT (inside):

The first thing to do is to switch on the electrical circuit on the control panel.

Check that the water pump is working and purge any air in the

circuit, for example by carefully opening the kitchen taps. All air is purged when water starts flowing. Do the same thing for the cold water and hot water circuits which are independent.

Air also needs to be purged in the gas circuit. Open the cylinder in the outside compartment, then open the red supply valves to the various appliances. Purge by opening the heater supply valve and switching the gas on. You will know that there is no more air in the circuit when it starts working (flame). Repeat the operation for each device that uses gas.

Your preparation operations will be finished when the water and gas are both working. Please refer to chapter XI for operation of each appliance.

PLEASE NOTE: more detailed information from the manufacturer of each of these devices is supplied with the vehicle.

Carrying passengers





The number of authorized seated positions in your camping car when driving on the road is marked on the registration certificate. When travelling, passengers must be seated in the places indicated (pictograph) with safety belts securely fastened.

• Equipment, accessories and conveniences in the living area of the camping car are designed for use when the vehicle is stationary only.

This is particularly the case for the extensible television support which is only usable after vehicle total stop.

Their use while the vehicle is in motion may contravene road regulations and introduce risks about which the user should be aware.

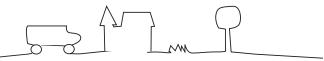
Similarly, unexpected movements of the vehicle can make standing people fall over.

Therefore, the driver and passengers should evaluate these risks in each case.

The manufacturer cannot be held responsible for incidents or accidents occurring whilst the camping car is in motion.

CHAP. IV

Loads





The camping car is a mobile home so everyone can lay it out as he or she wishes, but some rules have to be respected; these can be summarized as two main rules.

The first is to keep the center of gravity low. This is a question of safety to improve the road holding of your camping car. You simply need to keep the weight low, in other words put everything heavy in the lower compartments and lightweight articles in the top cupboards.

The second rule is the maximum authorised loaded weight. This is noted directly on the motor-caravan's registration certificate. You must **respect this limit** by reducing your load, simply by eliminating everything that is superfluous.

In addition, you must also respect the maximum authorized load on each of the front and rear axles, as well as a left/right

distribution that is an balanced as possible with respect to the vehicle axis (loaded vehicle with, of course, passengers included). The maximum permitted loads on each axle are given on the living compartment identification plate.

If you have a roof rack and would like to use it to transport lightweight equipment (see centre of gravity problem), make sure your load is tied down firmly and to protect your "roof plate" in order to avoid rubbing or other damaging actions, which would cause the roof covering (polyester skin) to deteriorate.

On the inside, take full advantage of the storage areas for clothing and utensils; when traveling, everything must be **perfectly wedged in** and furniture doors must be closed and locked.

CHAP. V

Windows and skylights in methacrylate





Our units are equipped with plastic windows (bays and skylight).

In most cases, your motorhome is equipped with projecting bays that open directly to the outside and skylights; they **must be** closed when the motorhome is on the road.

It is strongly recommended not to use aerosols near the bay windows and skylights (risk of ring formation).

These windows must be cleaned exclusively with water and mild soap. Never use detergent products, including those designed for everyday use. In particular, those based on hydrocarbons or alcohol may alter window transparency and even cause cracking.

CHAP. VI

Driving





■ GENERAL - OVERTAKING

A camping car is driven in much the same way as a car. However, the vehicle is larger (both in height and in width) and heavier; therefore acceleration is not the same.

Therefore the most important point is the size and you must respect road signs about size, particularly signs that control the height, width and maximum weight; your vehicle weighs more than 2 T.

For the width, note that if your rear view mirrors pass, everything will pass.

PRECAUTIONS - SIGNALING

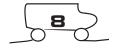
Avoid the following dangers:

- Underground car parks.
- Some service stations, which may have superstructures that are too low.
- Shop signs that project over the road.
- Tree branches that hang over the road.
- Passages under porches.
- Narrow roads.
- Bridges and narrow passageways
- etc.

and do not forget speed humps and level crossings.

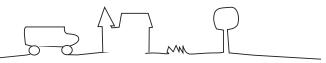
If you park in reverse gear, do not keep going until the wheels touch the pavement, the overhang at the back can be long, so watch the back of your camping car.

When driving, take care with the length on tight turns and do not hesitate to give yourself a little extra room.



CHAP. VII

Pressure





■ TYRES

Verification of pressure should be done when the motor home is loaded (cold tires).

Tire pressure is given by the carrier manufacturer in the maintenance booklet and is also found on the front door frame.

In addition, the maximum tyre pressure authorised by the manufacturer is indicated in PSI on the side of the tyre (15 PSI = 1 bar).

 \triangle Alignment is adjusted by the manufacturer of the unit at the factory and must be checked again without fail at 1500 km. We strongly suggest checking alignment once a year. This will be done at the user's expense.

■ SPARE TYRE

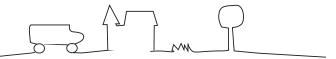
The **Fix and Go Kit** system has been adopted in place of the spare tyre.

In case of a flat tire, please do the following:

- completely remove the vehicle from the traffic area. If you are on the highway, pull off on the emergency stop area or onto a rest area.
- put on safety clothing (safety vest) before getting out of the vehicle on the side opposite traffic.
- ensure passenger safety by asking your passengers to go away from the vehicle and/or to the other side of the protective barrier if there is one.



Euro-relais station



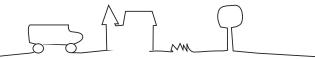


These stations are provided specially for camping car enthusiasts. It is fairly easy to find them, since all specialized press magazines print frequently updated guides telling you where to find them.

You can fill up with water in these stations, and also and especially you can empty your waste water and the WC cassette. Please leave the area in a clean condition for the next user.

CHAP. IX

Parking manoeuvres





When you find a place to park, you will settle for operating using your mirrors, but do not hesitate to get help for reversing.

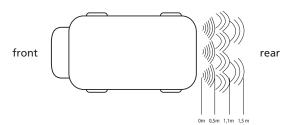
Some of our models are fitting with a parking detector, an ideal aid for demanding motor caravanners.

The parking detector informs the driver of the distance of an obstacle by means of an audible signal, which makes parking safer. The system is automatically activated as soon as reverse gear is engaged.

■ Operation

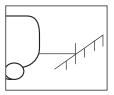
The parking detector emits ultrasonic sound waves that are reflected by an obstacle and generates an audible signal. The exact detection of the distance of an obstacle renders parking manoeuvres easier, even in restricted spaces. The frequency of the ultrasonic sound waves has been chosen to avoid interference and discomfort to people and pet animals.

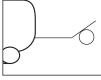
■ Signalling

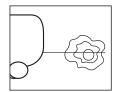


In some circumstances the system may fail to detect or incorrectly signal obstacles:

- an obstacle with a complex shape, with hollows or projections;
- an obstacle that is very smooth and reflective (glass and mirrors), especially if it is located almost parallel to the motor caravan body.







Obstacles that are... Smooth and sloped

Obstacles that are... Smooth and circular

Obstacles that are... that absorb the sound waves



Important remarks:

This system is exclusively an aid to the driver and must never be considered to be infallible. You must always take care and use

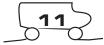
your judgement.

Carry out parking manoeuvres at low speed in order to ensure your own safety and that of others.

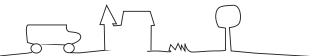
Stop your vehicle when audible signalling starts, to take into account the effects of inertia.

Regularly check that the detectors operate correctly and clean them carefully.

In the event of rain, snow, or ice, the sensitivity of the detectors can be temporarily reduced by up to 20%. Take even more care in these conditions.



Parking manoeuvres





To ensure perfect stability of your rear (*) jacks, remember to take along at least two wooden wedges to place on the ground under the jack shoe.

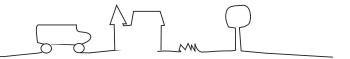
The jacks serve only to stabilize your motorhome and keep it from moving when you walk around on the inside; they should never be used to correct a slant or as for changing a tire.

Make sure that the floor of your motor home is perfectly horizontal to ensure the correct operation of all the functions in your motor home's living compartment.

(*) A standard feature on some models and an option on others.

CHAP. X

The camping car driver's charter





As with all types of vehicles, you need to follow the highway code when driving a camping car. You must respect traffic rules applicable to private cars.

In town centers or suburban areas, you should park your camping car:

- in areas with low population density
- where it will not obstruct visibility and access to shops
- so that it does not hinder traffic.

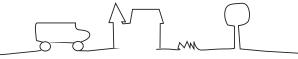
When staying in your camping car in this type of area:

- Do not have anything projecting outside the vehicle
- Do not cause any nuisance for neighbors
- Do not monopolize public areas

- Take care that your pets do not make a mess outside. Drain waste water into appropriate locations such as special service areas, stands, public or private toilets, etc.

Warning: Do not empty your waste water into rain water drain pipes (gullies) since not all of them are connected to a treatment plant. All water drain taps must be closed when traveling. Put domestic garbage in bags and leave the bags in locations provided for them.

Applying all these principales will make for good neighborliness, help to protect the environment so that you can expect a warm welcome wherever you go.





■ ELECTRICITY POWER SUPPLY

■ General:

The electrical energy necessary for your lighting and for operation of all household appliances, water pump, WC, etc. in your living compartment is provided by a 12 volt battery (2 on certain models).

All extra batteries are installed in addition to the basic vehicle battery. A coupling relay is installed between the two batteries:

- when traveling, this relay couples the two batteries together so that they are recharged simultaneously,
- when you are not traveling, it « separates » the two batteries.
 This, if your living compartment battery should be completely discharged, you can still start up the engine in your vehicle.

The battery(ies) of living compartment is(are) located

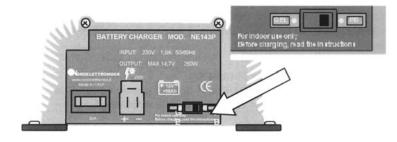
- generally inside a special box in a rear comportment of the camping car.
- under the front passenger seat

■ Additional battery:

Our motorhomes use two types of batteries: lead-based and gel-based. It is up to you to decide on their respective advantages; your selection criteria, in particular utilization, will determine your choice. Depending on your choice, you **MUST** adapt the battery charger to the type of battery.

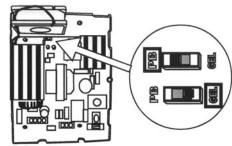
Our vehicles can be equipped with either an NE143-P or a CD 516 charger.

NE143P charger: On the panel next to the connections, a contactor lets you select the type of battery: "GEL" or "PB" for lead.



CB 516 charger: To access the contactor, open the hood (remove the two attachment screws) and look for it next to the fan.











The natural phenomenon by which batteries discharge slowly and regularly means that they are often in a deep discharge situation.

It has been observed that only a very small percentage of batteries are capable of accepting charge and therefore operating satisfactorily, starting from this deep discharge condition.

In order to avoid this situation, you MUST:

- either take out your batteries after charging them and storing them protected from frost.
- or to leave the vehicle connected to the 220 V supply and thus make sure that the living compartment remains charged. A hold current of 2 A max. goes onto the carrier

battery when the living compartment battery is fully charged. This is only valid in living compartments fitted with CBE control fascias (fascia in operation, naturally).

 or at least for short periods (1 or 2 weeks), disconnect the batteries and leave them in position after recharging them.

Because of changing and varying use condition of your living compartment battery, its guarantee is excluded of global guarantee. In the event that an auxiliary battery is replaced, the new battery must be of the same type and capacity as the auxiliary battery originally installed.

? LCD

■ Battery level alarm:

A buzzer is installed on certains models.

■ Fitting "electrical options"

We draw your attention to the need to connect the solar panel according to our recommendations. The connection is planned in the pre-equipment (see electrical diagram provided with the living compartment. Any direct connection can disturb the correct operation of the electrical installation of our living compartment.

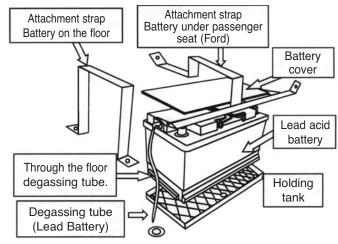
The same applies to the additional generators; these must be connected after the junction box.

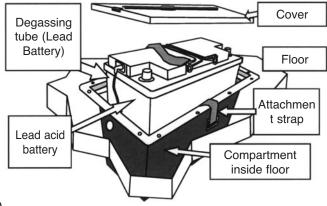
■ Fitting living compartment batteries

1 - Fitting the battery underneath the Ford chassis passenger seat:

Several components are required to fit the additional battery supplied in our various models, namely:

- 1 battery
- 1 drip tray
- 1 wiring harness
- 1 degassing pipe
- 1 holding clamp + screw, nut and washer
- 1 battery cover









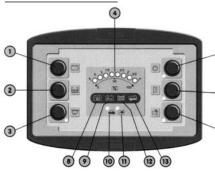


■ CONTROL AND INSTRUMENTATION PANEL

Our different models are equipped with different types of control panels; these are usually situated near the cooking unit.

IMPORTANT: to ensure all functions, battery charging, sensor, pump, etc.. It is essential that the control panel is turned on (Table 5 PC 150 TR Button, Button 152 NE Table 1).

■ Model PC 150 TR



Mark 1

Button to check the leisure battery (B2) and the car battery (B1).

Press the button once and you will see the charge of the battery B1 and twice you will see the charge of the battery B2.

Mark 2:

Button to check the drink water tank and for drinking water refilling function operation. Press this button and you will see the level of drink water tank with help of the leds (4).

Mark 3:

Buttons to switch the lights on and off. In order to have lights in this vehicle, the main switch must be turned on.

Mark 4: 1) LED display:

- Voltmeter for the control of car and leisure battery voltage (scale 0 to 100%).
- Drinking water tank level (Emergency level, 1/3, 2/3, 3/3).

Mark 5:

Mains' general button ON/OFF and security relay; LED flashing indicates that the battery is low and that the low voltage device will turn on.

Note: At start-up, the panel verifies the functioning of all LEDs with the exclusion of ref. 10 and 11.

Mark 6:

Button light button; this awning light switches automatically off when you start up the engine.

Mark 7:

Water pump button; it controls the pump relays. Its functioning is indicated by an orange led placed next to the button. It depends on the main switch.

Mark 8:

If this symbol blinks the leisure battery (B2) has run down.

Mark 9

1) If this symbol blinks the car battery (B1) has run down.

Mark IO

It shows the leisure battery recharging through engine alternator.

Mark I1

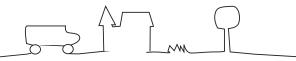
Led to signal 230V net on.

Mark 12

If this symbol blinks, the drink water tank is empty.

Mark 13

If this symbol blinks, the wastewater tank is full.



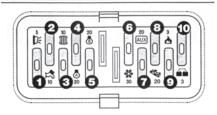


■ CONTROL AND INSTRUMENTATION PANEL MODEL PC 150 TR

LOW VOLTAGE CONTROL

An electronic device cuts off all 12V power supplies when the service battery drops to the minimum voltage of 10V. It is possible to manually re-establish functioning for roughly one minute by shutting off the overall power switch and turning it on again. The refrigerator, the electrical step-plate and the functions supplied directly by B2 (unit battery) are excluded from this arrangement. If the overall power button is not lighted (off), this means that the service battery is disconnected from the installation and can be recharged only with the engine running.

FUSES DISTRIBUTION BOX "DS300-TR

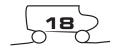


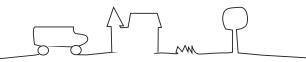
- 1. A fuse to give power to the awning light, it depends on the awning button and it switches automatically off when the engine is started.
- **2.** 10A fuse to give power to the water pump; it depends on the pump button.

- **3.** 10A fuse to give power to the heating/boiler; it depends on the main button ON/OFF.
- **4.** 20A fuse to give power to the lights group "A", it depends on the lights button.
- **5.** 20A fuse to give power to the lights group "B", it depends on the lights button.
- 6. 30A fuse to give power to 12V AES or 3-way function fridge. The 3-way function fridge switches automatically off when the engine is off
- 20A fuse for the auxiliary power supply (limiting the charge of solar regulator); it depends on the main button ON/OFF, auxiliary 1.

- **8.** 25A fuse for the electrical step power supply; it depends on the main button ON/OFF, auxiliary 2.
- 9. 3A fuse for the gas power supply (fridge, kitchen, boiler valve, etc..), it depends on the main button ON/OFF.
- 3 A fuse for OUT D+ simulated exit protection.

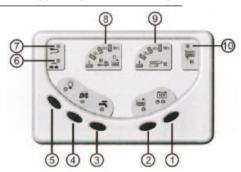
ATTENTION: The recharge by the network and solar regulator are only made when the control panel is on.







■ CONTROL PANEL NE 152:



Mark 1:

Press this button to view service battery (B2) voltage and start-up battery (B1) for approx. 30 secs. When there is power the voltmeter leds illuminate in sequence (up to that corresponding to the battery value) to signal that the service battery B2 is charging.

Button for turning on and off the B2 security box master switch.

Mark 2:

Press this button to view the drinking water tank level S for approx. 30 secs.

Mark 3:

Push button with warning light for turning PUMP on or off.

Mark 4:

Push button with warning light for turning on or off the EXTERNAL LIGHT.

Mark 5:

Push button with warning light for turning on or off the INTERNAL LIGHTS A and B.

Mark 6:

If the parallel battery is active with camper engine running the led goes on.

Mark 7:

If there is main power the led goes on.

Mark 8:

LED indicating the battery level B1 (as a percentage 0%-100%) or level of water in the recycling tank S1 (Reserve, 1/3, 2/3, 3/3).

Mark 9:

LED indicating the battery level B2 (as a percentage 0%-100%).

Mark 10:

If the recycling tank is full the led goes on.



ALARMS:

Batteries:

Car battery (B1) less than 11V or Service battery (B2) less than 11V.

In this case there is a beep (if enabled) and the LED for the battery test key flashes with the LED (R) for the batteries that have generated the alarm.

Tanks:

Tank S1 empty or Recovery tank R1 full.

In this case there is a beep (if enabled) and the Tank test key LED flashes with the LED for the tank that has generated the alarm.

Enabling or disabling the beep:

When the tank test key is held down for over 2 seconds its LED will begin to flash and you can:

Use the general lights key:

to enable (warning light on) or disable (warning light off) the beep for the tank alarm.

Use the external light key:

as above for the batteries flat alarm beep.

Use the pump key:

as above for the confirmation of pressed key beep.





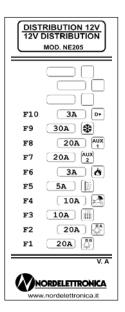


■ USER PROGRAMMING

FUSES

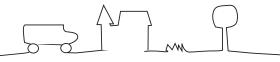
- **F1** 20 A fuse connected to the circuit that powers the B group of lights.
- **F2** 20 A fuse connected to the circuit that powers the A group of lights.
- F3 10 A fuse connected directly to the battery that powers the heating/ water-heater group.
- **F4** 10 A fuse connected to the water pump switch.
- **F5** 5 A fuse connected to the external lighting switch.
- **F6** 3 A fuse connected directly to the batter that powers the different ignitions (fridge, hotplate, etc.).

- F7 20 A fuse connected directly to the battery that powers AUX 2.
- **F8** 20 A fuse connected directly to the battery that powers AUX_1.
- **F9** 30 A fuse connected to the refrigerator switch for powering the fridge.
- **F10** 3 A fuse connected to the D+ switch being used and the running motor.



REMEMBER: When fuses blow, be careful to replace them with fuses of identical value.







■ FOOD SAFETY

Warning about the use of your refrigerator:

When storing your food, be particularly careful about the special conditions of use of a refrigerator located in a vehicle. The conditions inside the vehicle are indeed changing a lot depending on:

- The weather conditions
- The high temperature inside the vehicle especially if the vehicle is parked in the sun. The temperature may then reached 50°C.
- The use of the 12 V source during a long trip.
- The refrigerator being located behind a window facing the sun.
- In using the refrigerator too quickly after power-optimal temperature.

Under those circumstances, the refrigerator may not keep the temperature lour enough for the food preservation (especially highly perishable food).

List of highly perishable food : meat, fish, poultry, pork butchery precooked dish and all the products which need to be stored at 4°C max.

Always remember:

- Wrap up separately raur food and cook food in aluminium or plastic wrap.
- Dont remove the packing if useful information about the product are written on.
- Don't leave refrigerated products outside the refrigerator too long.
- Put the products that have to be eaten first in the front of the refrigerator.
- Put left-overs in seaied boxes an eat them rapidly.
- Wash your hands carefully before touching any food and before eating.
- Wash regularly your refrigerator. Use soap and water to wash it and bleach to rinse.

The use by date appears as follow: "Best before..." followed by the date or the information to know where the date appears on the labelling.

See the chapters in the refrigerator instructions concerning cleaning and storage of foodstuffs.

Please keep the instructions carefully. If others use the refrigerator, please enclose the instructions.



Our products are fitted with several different refrigerator models. The following is an overview of their operation. If you would like further information, please refer to the instructions written by the manufacturer of the refrigerator located inside your vehicle.

COMMON RULES AND INSTRUCTIONS

Refrigerator start-up

- Before using the fridge, we recommend that you clean the inside.
- When you use the appliance for the first time, allow it to cool for at least eight hours before putting food inside.
- The low-temperature compartment should be cold one hour after the fridge has been turned on.

USAGE

The refrigerator may operate (230 V), power supply, 12 V power or ow liquiefied gas. Use the controls A shown in figure 1 to change from one operating mode to another.

 Never cover the ventilation grills on the motor home walls. The absorption systems must be well ventilated to operate correctly.



 Any water ingress through the ventilation grills may damage your refrigerator permanently. We recommend great care when washing your motor home.

■ WINTER OPERATION

- 1. Check that the ventilation grills and the extractor have not been blocked by snow, leaves or similar.
- 2. When the outside temperature drops below 8°C, the optional winter protective device must be used. This is available from your sales outlet.
- 3. Affix the cover and fasten it.

It is advisable to use the winter protection when you do not intend to use your vehicle for an extended period (optional).

DEFROSTING

As time goes by, frost builds up on the fins.

When the layer of frost is about 3mm thick, the refrigerator should be defrosted.

- 1. Switch off the refrigerator.
- 2. Remove the ice cube tray and food.
- 3. Leave the refrigerator door open.
- 4. After defrosting (freezer compartment and fins free of frost), wipe the cabinet dry with a cloth.
- 5. Use a cloth to mop up the water from the freezer compartment.
- 6. Switch the refrigerator back on again.

The layer of ice must never be removed forcibly, nor may defrosting be accelerated using a heat source.

Note:

Water thawing in the main compartment of the refrigerator runs into an appropriate container at the back of the refrigerator. From there, the water evaporates.



? ***

- Switching OFF
- 1. Set energy selector switch (A) to position "O" (OFF). The device is completely stopped.
- 2. Secure the door open by means of the door stop. The door will be slightly. This is to prevent mould from forming inside the appliance.



Switching off gas operation! If the refrigerator is to be taken out of service for an extended period of time, the on-board shut-off valve and the cylinder valve must be closed.

MAINTENANCE

- Works on gas components and electical installation may only be carried out by authorised personnel. We recommend to contact your Dometic Service Centre.
- EN 1949 stipulates that the appliance's gas equipment and it's associated fume system must be inspected after installation and a certificate issued.

Afterwards a qualified technician must inspect according to EN 1949 every two years and a certificate issued.

It is the user's responsibily to arrange for inspections after purchase.

• It is recommended that the gas burner be inspected and cleaned as necessary at least once a year.

■ ENERGY-SAVING TIPS

• At an average ambient temperature of approx. 25°C, it is sufficient to operate the refrigerator at the middle thermostat setting (for both gas and mains voltage).

- Where possible, always store goods that have previously been cooled
- Do not position the refrigerator in direct sunlight.
- Constant circulation of air must be supplied to, the refrigerator unit.
- Defrost regularly.
- Open the door only for a short time when removing goods from the refrigerator.
- Run the refrigerator for about 12 hours before filling it.

■ STORING FOOD

- Turn the refrigerator on about 12 hours before filling it with food. If possible only put cold foodstuffs inside. Always store food in closed containers, or wrapped in aluminium foil etc.
- Always store food in seaied containers, aluminium foil or similar.
- Never put hot food into the refrigerator, always let it cool down first.
- Products that could emit volatile, flammable gases must not be stored in the refrigerator.
- Store quickly perishable foods directly next to the cooling fins.
 The freezer compartment is suitable for making ice cubes and for short-term storage of frozen food. It is not suitable as a means of freezing foods.
- Do not expose the refrigerator to direct sunlight.
- Take account of the fact that the temperature inside a closed vehicle left in the sun can rise to a high level and affect the refrigerator's performance.
- Do not obstruct air from circulating around the refrigerator aggregate.

These tips apply only to highly perishable products.







BEWARE!

- Flammable material should be kept well away from the refrigerator.
- The gas cylinder must be changed outside, away from any ignition source.
- It is forbidden to run the refrigerator on gas when travelling. If there should be a fire following an accident this could cause an explosion.
- It is also forbidden to run it on gas in the vicinity of service stations.

Warning:

If you remain a long time without using the refrigerator, it is necessary to close the valve of the gas cylinder and the gas taps.

Warning:

You should always start and cool down the refrigerator by connecting it to gas or the mains. Running it on the 12 V battery only serves to keep it and the foodstuffs inside it at the correct temperature once it is cold.





Usage

ENERGY

1. 12 V - operation (DC)



The refrigerator should only be used while the motor is running, otherwise the on-board-battery would be discharged within a few hours!

2. Mains power

This option should only be selected where the supply voltage of the connection for power supply corresponds to the value specified on the data plate. Any difference in values may result in damage the appliance.

3. Gas operation

Manual lighting:

- 1 Open the valve on the gas cylinder and the gas valves.
- 2 Press the gas feed selection button.
- 3 Put the gas control button on the maximum position and hold it in.
- 4 Press repeatedly on the manual lighting button at 1-2 second intervals.
- 5 Let go of the gas control button when:

THETFORD = the flame controller reaches the green area.

DOMETIC = after 10 to 15 seconds while looking for the presence of the pilot light inside the refrigerator at the bottom.

- Do the preceding operations once again if the flame controller does not reach the green area;
- Adjust the temperature using the thermostat (B). The bigger the mark, the stronger the power.

Electric / automatic lighting:

- 1 Open the valve on the gas cylinder and the gas valves.
- 2 Press the gas feed selection button.
- 3 Put the gas control button on the maximum position and hold it in.
- Lighting will occur automatically. You will hear a clicking noise that stops when lighting has occurred. The flame controller then turns green (THETFORD) or the tick-tock and the blinking light stop (DOMETIC)

You can let go of the gas control button.

- If the flame goes out, lighting will repeat automatically.
- Adjust the temperature using the thermostat. The bigger the mark, the stronger the power.

■ AES SYSTEM (AUTOMATIC ENERGY SELECTION)

After opening the feed valves, select the type of energy and follow the directions shown on the screen.

Recall: The refrigerator should only be operated using liquid gas (propane, butane). DO not use town gas or natural gas or LPG.

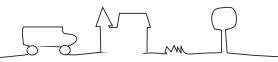
Note: Disturbances may occur when priming the gas at more than 1,000 m above sea level (this is not a malfunction).

Using the gas refrigerator during travel is prohibited. Using it at a service station is also prohibited.

BEWARE!

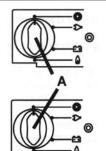
Never press the gas control knob several times consecutively for more than 30 seconds. If the pilot light does not appear, wait at least five minutes before repeating the operation. Gas could accumulate and result in a fire or explosion if this rule is not observed.



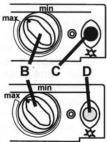




DOMETIC REFRIGERATOR

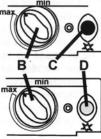


- A: energy source changeover switch
- B: gas/electric thermostat
- C: "Manual lighting" (piezo lighter) push button
- D: "Automatic lighting" indicator



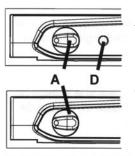


- 1 = Energy source changeover switch (MODE)
- 2 = Temperature threshold selection
- 3 = Door opening (for electrically locked doors only)
- 4 = Breakdown indicator
- 5 = Door locking indicator (option)
- 6 = Operating mode indicator/display
- 7 = Temperature threshold display

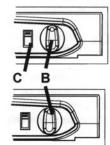


- 1 = 4 modes
- Stop
- Voltage selector (220 V)
- Continuous voltage (battery, 12 V)
- Gas (liquefied propane/butane gas)

■ THETFORD REFRIGERATOR



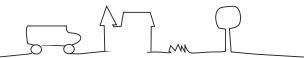
- A = Power source changeover switch
- B = Thermostat
- C = Flame controller
- D = Manual starting (piezo)





- A = Main button (on/off)
- B = Mode selection button
- C = Temperature selection button
- D = Separation resistance switch (double door refrigerators)
- E = SES (Smart Energy Selection)
- F = Operation indicator
- G = LCD screen







■ GAS OVEN (optional mounting on certain models only)

The appliance can only be used for cooking and must never be used as a heater. Use of this appliance can generate heat and humidity. This means that proper ventilation of the kitchen must be provided.

■ Use



- To light the oven or grill, the door must be completely open.
- The push button must be pressed gently then turned to the left to the lighting position. When the flame has lit, the button must be held down for about 10 seconds. If a grill is fitted, this is lit by turning the button to the grill position on the right hand side.
- Stop pressing the button, and turn it to the desired setting.
 The appliance is fitted with an automatic thermostat for temperatures of up to 250°

IMPORTANT:

If the oven or grill fails to light, the entire procedure must be repeated. If the appliance fails to function after 3 attempts, you should contact your sales outlet. Before using the oven for the first time, you must operate it for half an hour at the highest temperature setting.

■ Cleaning

Only clean the oven with cleaning products designed for domestic use.





■ MINI GRILL (UK MOBILE HOME VERSION ONLY)

■ Manual lighting of the oven-grill:

Push slightly on the control knob and turn it to the lighting position.

Push the button all the way in, then light the burner with a match or a gas lighter.

Maintain pressure on the knob for 5-10 sec.

Release the oven knob and turn it to the desired setting.

N.B. Manual lighting must be done only by an adult.

■ Automatic lighting of the oven-grill:

To light the oven or the grill, open the door completely. Lightly press the control knob and turn it to the lighting position. Push the knob in all the way and maintain pressure for 5-10 sec. N.B. The oven burner and the grill will not light if the door to the oven is closed or only partially open.

■ Lighting of the appliances with thermostat:

Proceed as described in paragraphs 1 and 2, with or without electronic lighting. Lighting position is chosen by turning the command button between positions 1 and 6 for the oven and to the only position (\(\neg \text{V} \neg \text{V}\)) for the grill.

In ovens with a thermostat, the different positions of the knob correspond to the following oven temperatures in Centigrade:

POS.	1	2	3	4	5	6
TEMP.	130	160	180	200	220	240

IMPORTANT: If the oven does not light the first time, repeat the operation from the beginning and, if necessary, check to see that the appliance is supplied with gas or electricity. If the appliance does not work at all, close the gas supply valve and contact your dealer. Do not use the appliance to heat the air.

If the burner flame goes out accidentally, close the gas knob and wait at least 1 minute before re-lighting the burner.

Use gloves to manipulate hot elements.

■ Functioning of the grill:

- a) Completely remove the heat-protector plate.
- b) Light the grill burner.
- c) Leave the oven door halfway open.

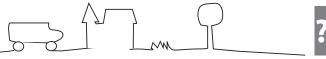
■ HEATING PLATE

Various brand-name heating plates are installed in our different models. **Operation:**

Open the valve of the gas tank, as well as the safety lock of the cooking plate.

On the cooking plate, turn the corresponding knob from the closed position (position 0) to the maximum position (full flame),







push the knob in and maintain it in this position while igniting the burner with a match or lighter.

The knob may be released after around 10 seconds, after the burner has been lit.

Set according to the heat desired.

(on certain 3-burner models, the most powerful burner is a different colour)

Burners should always be lit without a cooking recipient on top of them.

Shutting off:

Turn the knob to the stop position (0). Close the cooking plate valve.

Breakdown:

If the appliance no longer works, turn it off and consult a specialist.



It is forbidden to use the cooking plate during refilling of the gas containers or inside a garage.

Care and cleaning:

This must be done only when the appliance is turned off and has cooled down.

Do not use abrasive or corrosive products, products based on chlorine, steel wool or a knife blade.

Do not leave acid or alkaline substances (vinegar, salt, lemon juice, etc.) on the surface of the cooking plate.

For the surfaces in stainless steel and the enamelled parts, wash with soapy water or detergent, rinse and wipe.

Use a sponge or a clean cloth.

From time to time, check the combustion air input and clean it if necessary.

CAREFUL: The glass covers can break if they are heated. Turn off all burners before closing the cover.

CAREFUL: On the models with a built-in sink and cooking area that includes a glass cover over both these areas, please note that when the cooking area is being used and the cover over the sink is closed, you must maintain a minimum distance of 10 mm between the pan and the sink cover.







■ WATER HEATER (BOILER)

Our different models are equipped with different types of appliances: simple boilers for heating water only and combined appliances for heating both water and the mobile home unit.

If there is any risk of frost, drain the boiler. The guarantee does not cover any damage caused by frost.

■ Boiler

The following describes the user instructions for this appliance. However, you will have been provided with specific instructions for this appliance when your camping car was delivered. It will give you details of how to make the best use of your boiler.

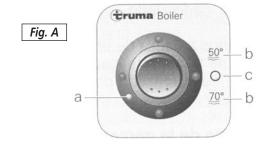


Fig. A
Control unit

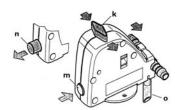
a = red "Failure" indicator lamp

b = water heater "On" 50°C or 70°C

c = water heater "Off"

■ Security/drainage valve (FrostControl)

FrostControl is an autonomous security/drainage valve that operates without electrical current. If there is a risk of freezing, the valve automatically evacuates the contents of the boiler via a purge hose. Automatic pressure compensation by pulsations takes place via the safety valve in case of excess pressure in the system.



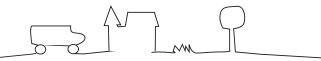
k = rotating changeover switch in "on" position

m = pressure button in "off" position

n = pressure button in "purge" position

o = purge hose (goes through the vehicle floor pan to the exterior).







Closing the drainage valve:

Check to see if the rotating changeover switch is in the "on" position (k); that is, it is parallel to the water connection and in operation.

The drainage valve can be shut off manually with the pressure button (position m) and the boiler filled only when the temperature on the evacuation valve is above 7°C.

Shut the drainage valve by pushing on the pressure button. The pressure button should lock in position (m) "off."

Automatic opening of the drainage valve:

If the temperature is less than 3°C on the drainage valve, it will open automatically and the pressure button will pop out (position n); the water from the heater will drain via the purge hose (o).

Manual opening of the drainage valve:

Turn the rotating changeover switch 180° until becomes fixed in place; the pressure button pops out (position n). The water from the heater drains via the purge house (o).

To ensure proper drainage, the purge hose (o) of FrostControl must always remain free of obstructions (melting snow, ice, dead leaves, etc.). The warranty does not apply in the case of damage due to freezing!





■ Filling the water heater:

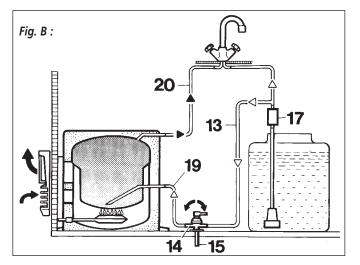
Before starting your water heater for the first time and after draining:

Fig B:

- 1. Check to see that the security/drainage valve (14) is closed.
- 2. Switch the water pump on (main switch or pump switch).
- 3. Open the hot water taps in the washroom or in the kitchen (mixer tap or single control mixer in the « hot » position) until

the water heater is full of water, all air has escaped and water is running freely.

4. If there has been a frost, it is possible that filling will not take place due to an ice plug formed in remaining water. In this case, switch the water heater on (for not more than 2 minutes) so that you can fill it. Defrost frozen pipes by heating the living compartment.



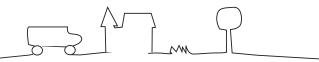
■ Start up

Warning: never operate the water heater without water.

- 1. Remove the outside cover from the flue.
- 2. Open the gas cylinder and gas supply pipe taps.
- 3. Switch the water-heater on by placing the selector switch figure (A) onto required temperature (b).
- 4. If the gas pipe is full of air, it will take about one minute before the gas reaches the burner. If the appliance indicates "failure" (red light) repeat the process by switching off the appliance.

Waiting for 5 minutes and then starting again.







■ Switching off

Use control knob (a) to switch your water heater off (fig. A). Fit the chimney cover. Empty the water heater if there is any danger of frost.

If the heater will be shut down for a long period, close the fast closing valve in the gas pipe. Close the gas cylinder valve.

■ Red « failure » indicating light

The red indicating light comes on if there is a failure. Possible reasons include no more gas, air in gas pipes, fault in safety element, etc.

To clear the « fault », switch the apparatus off - wait for 5 minutes - and then start again.

■ Emptying the water heater

(see Fig. B)

1. Switch off the electricity power supply to the water pump (main switch or the pump switch).

- 2. Open the hot water taps in the washroom and in the kitchen.
 - 3. Open the security/drainage valve (14).
 - 4. Then drain the water heater using the safety valve (14)

towards the outside. Check to make sure that all water runs out (10 or 14 liters depending on the model).

■ Maintenance

When you want to remove scale from the water heater, use wine vinegar or formic acid, putting it into the appliance through the water inlet. Allow the product to act and then clean the water heater thoroughly with fresh water. We recommend that you use «Certisil» to degerminate the appliance since other products, and particularly products containing chlorine, are unsuitable.

To prevent the spread of micro-organisms, you should heat the water heater regularly to 70°C.

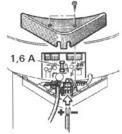
The gas installation should be checked regularly by an authorised workshop. This check should be instigated by the vehicle owner.

The water contained in the tank is not drinking water.

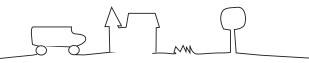
Your gas fittings must be checked regularly by a registered workshop. The owner is responsible for having these checks done.

Fuses

The appliance's fuse is located on the appliance's electronic command unit. Only replace the fuse with an identical model and rating of fuse: 1.6 A (slow blow).









COMBI TRUMA DIESEL

A specific user manual for this model is provided with the camper living compartment.

■ Description of the operation

The Combi D diesel heater is a warm air heater with a built-in water heater (10 litre volume). Burner operation is fanassisted which ensures trouble-free operation even when on the move.

In winter operation, the heater heats the living compartment whilst simultaneously heating the water. Hot water only can be produced in summer operation.

- In **summer operation**, the water is heated using the smallest burner flow rate. The burner shuts down once the water temperature is reached.
- In winter operation, the unit selects the power level required automatically based on the difference between the temperature set on the control panel and the current room temperature. The water is heated automatically when the water heater is filled. The water

temperature depends on the selected operation and the heater output.

At a temperature of approximately 3°C at the automatic FrostControl safety/drain valve, the valve will open and drain the water heater.

An additional altitude kit is required for long periods of heater use at altitudes of 1500 to 2750 m.

■ Fuel supply

Fuel quality:

The heater requires diesel to operate according to DIN EN 590. The use of biodiesel is not permitted.

Fuel at low temperatures:

Refineries and even filling stations will automatically make adjustments for normal winter temperatures (winter diesel).

Temperatures below freezing can cause problems if the vehicle still has summer diesel in its tank. If no special diesel is available for use in very low temperatures, winter diesel for example, then petroleum or petrol should be mixed with the fuel, as recommended by the vehicle manufacturer.

Temperature:

0°C to -20°C Winter diesel -20°C à -30°C Polar or Arctic diesel Used oil must not be used in a fuel mixture!

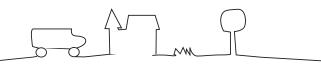
■ Operating instructions



It is essential to flush the entire water supply system through with clean water before using for

the first time. Always drain the water heater when not in use if there is a risk of





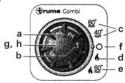


frost! We reject any claim for damage caused by frost!



Materials in the equipment in contact with the water are suitable for drinking water.

Control panel:



- a = rotary switch to adjust the temperature (1-5)
- b = green LED lit "operation"
 green LED blinking: "shutdown
 timeout" to lower the unit's
 temperature is operational.
- c = Summer operation (water temperature 40°C or 60°C)
- d = Winter operation (heating without water temperature control or with bled water installation)
- e = Winter operation (heating with water temperature control)

f = Rotary "Off" switch

g = yellow LED lit: "water heater heating phase"

h = red LED lit, red LED blinking: "Fault".



The LEDs are only visible when the unit is switched on.

Room thermostat

An external room temperature sensor (i) is located in the vehicle to measure the room temperature. The position of this sensor is determined individually by the vehicle manufacturer based on the vehicle type.



i = Room temperature sensor

The thermostat setting on the control panel (1-5) must be determined individually based on the heat requirements and the vehicle type. We

recommend a thermostat setting of about 4 for an average room temperature of about 23°C.

Start up:

In principle, heating is always possible without restriction, with or without water.

Check that the cowl is not obstructed. Remove any filling without fail.

Summer operation:

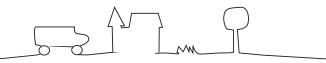
(water heater only)

Move the rotary switch on the control panel to position (c - summer operation) 40°C or 60°C. The green (b) and yellow LEDs (g) light up.

The burner shuts down and the yellow LED (g) is extinguished once the set water temperature is reached (40°C or 60°C).

Winter operation:

- Heating with controlled water temperature.





Move the rotary switch to operational setting "e".

Turn the rotary switch (a) to the desired thermostat setting (1-5). The green operating LED (b) lights up and simultaneously displays the selected room temperature setting. The yellow LED (g) displays the water's heating phase.

The unit selects the power level required automatically based on the difference between the temperature set on the control panel and the current room temperature. Once the room temperature set on the control panel has been reached, the burner switches back to its lowest power level and heats the water to 60°C. The yellow LED (g) goes out once the water temperature has been reached

The warm air fan can continue to run to cool the unit (shutdown timeout).

- Heating **without** controlled water temperature.

Move the rotary switch to operational setting "d".

Turn the rotary switch (a) to the desired thermostat setting (1-5). The green operating LED (b) lights up and simultaneously displays the selected room temperature setting. The yellow LED (g - water heating phase) only lights up when the water temperature is below 5°C).

The unit selects the power level required automatically based on the difference between the temperature set on the control panel and the current room temperature. The burner shuts down once the room temperature set on the control panel is reached. The warm-air fan continues to run slowly as long as the blowing temperature (on the unit) is less than 40°C.

The water is also heated automatically when the water heater is filled. The water temperature then depends on the heater output and the time taken for the heater to reach the desired room temperature.

- Heating with **bled** water system.

Move the rotary switch to operational

setting "d".

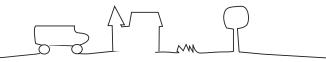
Turn the rotary switch (a) to the desired thermostat setting (1-5). The green operating LED (b) lights up and simultaneously displays the selected room temperature setting. The yellow LED (g) only lights up when the water temperature is below 5°C!

The unit selects the power level required automatically based on the difference between the temperature set on the control panel and the current room temperature. The burner shuts down once the room temperature set on the control panel is reached.

Shutting down:

Shut the heater down with the rotary switch (position f). The green LED (b) goes out.









SIf the green LED (b) blinks after the power is switched off, this means that a shutdown timeout

to lower the unit temperature is running. This stops after a few minutes and the green LED (b) goes out.

Always drain the heater if there is a risk of frost!

Fuses:

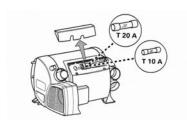
The fuses are in the electronic control unit underneath the connector cover. Replace defective uses with exactly the same fuses only.

Unit fuse:

10 A - delayed action - (T 10 A)

Burner fuse:

20 A - delayed action - 6.3 x 32 mm



■ Maintenance

It is mandatory to use original Truma parts for all maintenance or repair work.

The water reservoir is made of steel used for alimentary applications.

To protect the apparatus from colonisation by micro-organisms, use chemical methods to remove biofilms. deposits and scale. To avoid damage to the apparatus, use only non-chlorinecontaining products.

If necessary, regularly reheat the water in the water heater to 70° C to maintain the effectiveness of the chemical method for combating micro-organisms inside the apparatus.

Adjust the rotating switch on the thermostat control to position "c" (summer mode, 60° C). The green (b) and the vellow (a) LEDs will light up.



When the water in the water heater reaches a temperature of 60° C, the burner will stop and

the yellow LED (g) will turn off. The apparatus should remain lighted for at least 30 minutes and no hot water should be used. Residual heat from the thermal exchanger will heat the water to a temperature of 70° C.







AIR HEATER RUNNING ON DIESEL

Some different makes of heater are used.

No more gas-oil for heating is supplied once the reserve level of the carburant reservoir has been reached (alarm on the control panel). Therefore, do not wait for this alarm to go off before refilling if you intend to use this type of heating.



Since starting these heating devices uses a high amount of 12 V current, we highly recommend starting them during travel. This operation enables having a warm unit when you stop with a low impact on your battery and gas consumption.



It is mandatory to stop the gasoil heating element and wait until it becomes fully extinguished (burning of residues and ventilation of exhausts) before turning off the electricity for the control panel.



It is easy to operate:

• Switch on using the knob shown below, normally located on the front seat. A green light appears in the centre of the knob when the appliance is working. Turn the knob to the maximum position to start off and when it has regulated turn to the required position (about half-way for a temperature of 20°C). Never leave the heater set to maximum, as the safety cut-out may be triggered (overheating).

• Return to position 0 to switch off.



A temperature sensor is fitted on the driver side wall.



At least two outlets in the ventilation system are not fitted with smoke dampers. Do not reinstall the check valves or obstruct these heater exhaust outlets.

This equipment is designed by Webasto to operate up to 2000 m and at external temperatures to -40°C.







■ WEBASTO DUAL TOP HEATER/WATER HEATING SYSTEM POWERED BY DIESEL OIL

In the following, you will find a brief description of this new device. For more complete information, see the appliance manufacturer's guide.

■ Upkeep and safety instructions

Servicing relative to the warranty concerning these devices must be done only by repair shops that have been approved by the manufacturer.

Warranty claims are accepted only if it is possible to verify that the plaintiff has respected the upkeep and safety instructions.

Because of risk of explosion, heating must be turned off at service stations and during filling of the vehicle gas tank.

Because of risk of intoxication and asphyxia, heating must not be used in an enclosed area (a garage, for example).

For optimal performance, the heater should be checked every two years, particularly if it is used during long periods and/or in extreme environments.

The diesel/gas-oil fuel indicated by the vehicle manufacturer must be used for the Dual Top RHA-100 heating system. Class EL, L and PME (biodiesel) domestic fuels cannot be used.

There is no known drawback to utilisation of additives. If fuel is taken from the vehicle reservoir, follow the vehicle manufacturer's instructions concerning additives.

If you change to a special low-temperature fuel, run the heating device for around 15 minutes so that the system becomes filled with the new fuel.

To avoid jamming of mechanical parts, run the heater for around 10 minutes every four weeks.

Do not clean the heater with a high-pressure cleaning system.

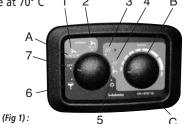
Take care of the vehicle and fully empty the water heater and all waterways if there is a risk of freezing. The warranty does not cover damage from freezing!

■ How to use

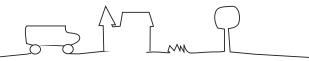
Control panel (fig 1)

Adjustments to the control panel are taken into account after a brief delay!

- A = Mode selector.
- B = Interior temperature selector
- C = Power/display error code blinker (green/red)
- 1 = Summer mode; water temperature at 40° C
- 2 = Summer mode: water temperature at 70° C
- 3 = Winter mode; heating only
- 4 = Winter mode; combined heating and hot water
- 5 = No-freeze mode
- 6 = Empty
- 7 = Off (stop)









■ Interior temperature sensor

An interior temperature sensor has been placed inside the vehicle in order to measure ambient temperature. The sensor is positioned according to the type of vehicle and its internal layout.

■ Operation

Summer mode (hot water only)

- 1. Make sure that the water heater is filled with water.
- 2. Turn the control panel button (A) to summer mode, 40° C (1) or 70° C (2).

The control panel light (C) turns to green when the heating system is switched on.

The red light indicating mode selection (A) will turn on.

When the water has reached the selected temperature (40° C or 70° C), combustion inside the heater will stop.

When the interior temperature falls below a certain value, combustion will be reactivated.

The control panel light (C) turns to green when the heater is switched on.

Winter mode (heating without hot water)

- 1. Turn the control panel temperature selector (B) to the level desired for inside temperature.
- 2. Turn the control panel mode selector (A) to winter mode, heating only (3).

The control panel light (C) turns to green when heating is switched on.

The red lights corresponding to mode (A) and interior temperature (B) turn on.

Once the inside temperature has nearly been reached, the heating apparatus activates modulation. Heating power is regulated to a level that allows maintaining a constant temperature.

If, because of environmental influences, the interior temperature is above the selected temperature, combustion inside the heating apparatus will stop.

Note that if the water heater has been filled, water is also automatically heated. Its temperature can reach 80° C, depending on the power and duration of heating.

Winter mode (heating with hot water)

- 1. Make sure the water heater is filled with water.
- 2. Turn the control panel temperature selector (B) to the desired level for inside temperature.
- 3. Turn the control panel mode selector (A) to winter mode with heating and hot water (4).

The control panel light (C) turns to green when heating is switched on.

The red lights corresponding to mode (A) and temperature (B) selection turn on







Heating power progressively diminishes as the desired inside temperature is reached. If this temperature is attained before the water has been sufficiently heated, the air circulation fan turns off and the water continues to heat to a temperature of 70° C.

Water temperature can reach 80° C, depending on the heating power needed to attain the desired inside temperature.

Signal for LACK OF WATER:

When the control panel selector (A) is on winter mode, heating with hot water (4), an alarm signal appears on the control panel if there is no water in the water heater.

The green light of the heating without hot water symbol (3) will start to blink.

In this case, turn the control panel button (A) to winter mode, heating without hot water (3).

FREEZING:

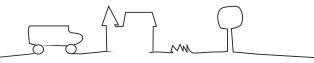
If there is a risk of freezing, thoroughly empty the hot water system. Damages caused by freezing are excluded from the warranty.



Please note there is no automatic drain in case of frost with the Dual Top.

A frost-guard setting is planned for (depending on the availability of gasoil and electricity).







■ DUAL TOP RHA 102 HEATER/WATER HEATER

This type of heater is fitted to a few of our specific models intended for use in Northern Europe only.

A specific user manual is provided with the living compartment. Please consult this before starting the equipment.

This heater operates on diesel fuel or 230 V.

■ Summer operation (hot water only)

The heater is used to supply warm drinking water. The water is heated and kept at a temperature of 40°C or 70°C.

The heat is produced by a diesel burner or an electric heating device.

When the combustion burner is selected as the heat source, the unit selects the burner setting automatically.

The water can also be heated electrically via an external 230 V power supply.

A temperature sensor regulates the water temperature. Given the varying operating and environmental conditions, the water temperature may vary slightly.

The internal warm air fan is not running.

■ Winter operation (heating only)

The heater is used to supply warm air. The heat is produced by a diesel burner, an electric heating device or a combination of the two.

If the combustion burner is selected as heat source, the unit adjusts the burner automatically between 1500 W and 6000 W based on requirements (depending on the difference between the temperature setpoint and the current inside temperature).

The amount of heat is adjusted to reach the preselected inside temperature quickly. Low power is then sufficient to maintain the inside temperature.

■ Winter operation (heating and hot water)

The heater is used to heat the inside and provide hot water. The heat is produced by a diesel burner.

The unit adjusts the burner automatically between 1500 W and 6000 W based on requirements (depending on the difference between the temperature setpoint and the current inside temperature).

The amount of heat is adjusted to reach the preselected inside temperature quickly. Low power is then sufficient to maintain the inside temperature.

A water temperature sensor regulates the water temperature whilst an inside temperature sensor regulates the inside temperature.

Given the varying operating and environmental conditions, the water temperature may vary slightly.







Domestic hot water temperature 70°C

Select this position to produce domestic hot water up to 70°C. The heating remains switched off



Use this position to produce domestic hot water up to 40°C. The heating remains switched off.



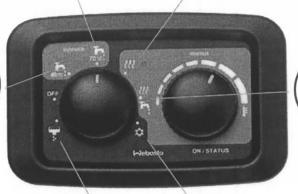
Domestic water heater draining CAUTION. If this button is kept pressed down for five seconds, the water heater automatically empties fully. To stop this process, press this button again for five seconds. Failure to comply with these instructions will place the unit in error mode.





Heating only

The inside is heated when this position is activated. Production of domestic hot water is deactivated. Use the right-hand button to set the inside temperature to the desired comfort level.





Heating and domestic hot water

Select this position to heat the inside of the living compartment and obtain domestic hot water up to 70°C. Use the right-hand button to adjust the inside temperature to the desired comfort level.





Frost protection position

elect this position when the vehicle is outside in temperatures below 6 and the heating is not running. The frost protection position prevents the domestic water from freezing regardless of the outside temperature.



Careful: draining cannot be done if there is no current.







■ EBERSPÄCHER HEATER

■ Switching on

The indicator lamp in the control panel lights on start-up. The glow pin is switched on and the fan starts to turn slowly.

Monitor this!

The fan comes on by itself at first (cold air) if there is too much residual heat from a previous heating operation in the heat exchanger. Once the residual heat has been eliminated start-up commences.

■ AIRTRONIC start-up

The fuel starts to flow after about 60 seconds and the air-fuel mix is ignited in the combustion chamber. Once the combination sensor (flame sensor) has recognised the flame,



the glow pin will be switched off after about 60 seconds. The heater will reach the "POWER" setting after another couple of minutes (amount of maximum fuel and maximum fan speed).

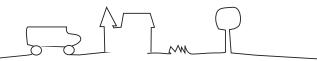
■ Selecting the temperature on the control panel

The inside temperature is pre-set using the rotary adjustment knob to between +10°C and +30°C depending on the heater selected, the area to be heated and the outside temperature. The setting chosen is an experimental value.

■ Adjustment when heater is in service

The temperature of the space, even of the suctioned hot air, is monitored constantly when the heater is in service. Adjustment commences when the temperature is higher than set on the control knob. Four adjustment levels are provided so that the heat current may be adjusted to match precisely the heat delivery required.

The fan speed and fuel quantity correspond to the respective adjustment levels. If the adjusted temperature is still exceeded when the equipment is on its lowest setting, the heater will move to the "STOP" setting. The fan will operate by inertia for about four minutes as part of the cooling process. The fan will then continue to operate at minimum speed (circulation of air) or even switched off (cold air) until switched on again.





■ Fan operation

Under fan operation, the "heater/ventilation" changeover switch must firstly be activated before the heater is triggered.

■ Switching off

When the heater is switched off the indicator lamp goes out and the fuel no longer flows.

The fan operates by inertia for about four minutes as part of the cooling process. The glow pin is switched on for about forty seconds when the fan is operating by inertia for cleaning purposes.

Special case:

The heater will stop operating without an inertia phase if no more fuel flowed into it before it was switched on or if it was in the "STOP" position.

■ Heating at altitude

Please consider the following points when heating at altitude:

- Heating up to 2000 m above sea level:
 - Unlimited heating possible.

- Heating at more that 2000 m above sea level:
 - Short stay (crossing a pass or stopping for a break), heating is possible in principle.

Longer stays (e.g. camping in winter), heating is not possible

■ Maintenance instructions

- Operate the heater for ten minutes once a month outside the heating season.
- Have a trial run with your heater before the heating season starts. If the burner emits heavy, persistent smoke or unusual noises, or even a strong smell of fuel, or if the electric/electronic parts overheat, switch the heater off and take it out of service by removing the fuse. Arrange for the heater to be inspected by specialist Eberspächer trained personnel before switching it on again.
- Check the combustion air duct openings and the exhaust gas ducting after a longer period of non-use and clean them if necessary.





GAS CIRCUIT

■ Supply to appliances

- Check that the valves to the various appliances are closed.
- Open the gas cylinder.
- Then open the valves supplying each appliance.
- Ignite the various appliances.
- Ignition may take some time because air in the pipes has to be purged.

Each appliance is equipped with a safety device that switches the gas supply off if the flame is accidentally extinguished.

- Closing circuits: proceed in the same way as when opening them, but in the reverse order.

■ Recommendations

All appliances operating on gas must not be used unless the vehicle is stopped. (parked vehicle).

Make sure that the cylinder(s) is or are properly closed before starting to drive.

Safety ventilation grills should not be obstructed – evenly partly – for any reason.

Naked flame heaters should not be used to heat the living area.

Make sure that the external grills are not obstructed by any protective devices that have been put in position, before switching the refrigerator and the water heater.

The grills are not supplied as standard with the motor caravan, but are available as an aftermarket option from your sales outlet. (optional).

WARNING

Never fill the gas tank when gas devices are in operation.







■ WATER CIRCUIT

Your camping car is equipped with:

- a clean water tank
- a waste water tank (2 on certain models)

■ Filling

Standard:

The clean water tank is filled through an opening with a screwon stopper located on the unit exterior and indicated with a pictogram.

Double:

One of our models is equipped with a traditional filling system inside the living unit in the kitchen block area and another specific system outside the unit. Filling is done under domestic pressure (2.5 – 3 bars) with a special adaptor that should be placed at the end of the water input hose. Before filling, the

stopper should be removed with a special wrench that is applied to the flange ring around the opening.

f the control panel is in fill mode.

An LED will light up to indicate that the tank is almost full and that filling should be stopped.

■ Internal power supply

The water supply uses a 12 V electric pump.

Pressurize the pump as follows:

- Check that all taps and mixers are closed (cold water and hot water).
- Switch on the 12 V pump, using the switch on the electric control panel.
- purge the cold water and hot water circuits using each tap or mixer.
- The installation is then ready to operate.

A purge fault (presence of air) may prevent the water heater from operating.

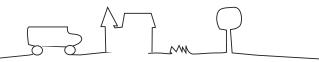
■ Clean water tank

When traveling, do not wait until the tank is almost empty before filling it. For example when filling with fuel, take the opportunity to fill up with clean water as well. Some parking areas have a tap, but in any case always be discrete and diplomatic.

Moreover, more and more communes are offering specific points with special camping car stations (for example EURO-RELAIS).

1 The water in the tank is not drinking water.







■ Waste water

Be careful where you discard waste water.

The wastewater reservoir is evacuated with the help of a knifegate valve that allows quick draining of the reservoir.

Locate the valve on the body



Manipulation handle (pull towards you for opening)

Knife gate valve





■ Insulation

Certain of our models feature specific insulation of the wastewater reservoirs, which are found under the vehicle chassis.

WARNING:

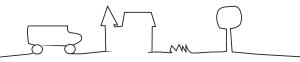
If you are not heating your vehicle when winter approaches, you must empty all clean water and waste water circuits and the water heater, to prevent any damage which will not be covered by the guarantee.

■ Water pump

For the Shurflo pump models, the tank must be completely drained during the winter. Draining is done by opening the drain tap or by opening all the taps and operating the pump (15 minutes on, 15 minutes off) until the tank is empty.

Next, disconnect the pump's inlet and outlet pipes, preparing a container to catch any residual water. Switch the pump on to evacuate any water remaining in the pump. To avoid problems due to freezing, do not reconnect the pipes during the winter, and leave all the taps open.







■ 230V POWER SUPPLY CONNECTOR

The mains power supply is connected to an EEC 230 V connector (2 pins + earth) on the right or left side of your camping car. Lift the protective cover when you want to access it and insert the standard plug (Differential protection).

■ 230 V internal power outlets

There are one or more 230 V power outlets in your living compartment.

PANORAMIC SKYLIGHTS

Suggested precautions

- Close the roof lights fully before driving the vehicle (make sure they are locked).
- Do not leave the roof lights open when absent from the vehicle.
- Do not open the roof lights in high winds or heavy rain.
- Remove snow, ice or any dirt from the roof lights before opening them.
- When the sun is shining, the shade for the skylight(s) must be closed at two-thirds maximum.
- In case of damage, see a specialized repair shop.

As is the also the case for living unit bay windows, the acrylic glass of the panoramic skylights must be cleaned exclusively with soapy water or with products especially adapted for acrylic glass. Fine scratches and some dull stains may be removed with polish and a soft cloth.

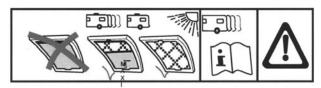
■ 230 V protection

A Circuit breaker protects your camping car during 230 V voltage. This circuit breaker is located in the wardrobe, under the bench or low elements in the living compartment depending on the model.

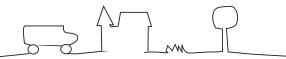
Move the control upwards (I position) to switch on the power.

Only use soapy water to clean the blinds. Failure to comply with these recommendations will automatically invalidate the guarantee. Using products other than soapy water will have disastrous consequences for the acrylic glass (deterioration, cracks, etc.).

A sticker on the skylight recapitulates proper utilization of the skylight and shade









■ BEDS

■ Above the driver

Fold the pivoting board down to the horizontal position, if there is one in your chosen model.

Remember to lift it up again to increase your driving space before you start driving.

■ In the dinette area

- Put the table between two seats or in front of the seat, depending on the model.
- Put the sliding extensions into position (if there are any) at each end of the bench
- Lastly, put the different cushions in place: seat and back cushions and other bedding parts.
- On certain models other bedding parts are furnished in option (check with our dealers).

■ Bunks

When the upper bunks or beds are used by children, in particular children under six, pay attention to the risk of falls and take all necessary precautions to ensure their complete safety.

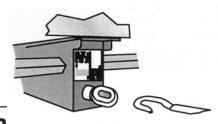
Certain models are equipped with safety nets that should be put in place under your responsibility. A label indicates this normative obligation.

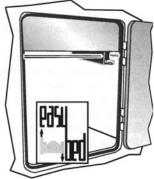


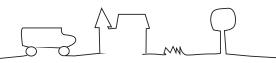
■ Rear bed

Two possibilities exist, depending on the model:

1) Electrical adjustment: a control button used to adjust the bed height is located under the bed, inside the bed storage box.









2) Manual adjustment: some models have this type of adjustment, which is done by raising the mattress and placing the adjustment wedge at the desired height. A small safety strap ensures that the wedge stays in place. (Do not forget the safety strap: we decline all responsibility for accidents that might happen in case this strap has not been properly positioned).

■ Electrically controlled central bed

Bedding on certain models is a central bed.. This bed is electrically controlled and has the following characteristics:

- From a safety point of view:
- The bed is held at the top by a safety belt-type "blocker" which should be released to allow lowering the bed;
- A key-activated system must be turned on for the bed to function:

Be sure you have taken these two steps before lowering the bed.

 Upper and lower safety features have been installed to allow sufficient space above and below the bed.

⚠ Be sure that: a) the table, bench and cushions are properly positioned and do not block installation of the bed; b: the safety net for the bed has been detached from the roof.



1) Intermediate:

- Bed lowered in two stages halfway "automatically" simply by pressing the control button. In this intermediate position it is of course possible to reach the bed via a ladder as well as in the lower position using the dining table.

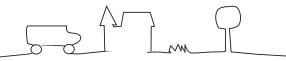
2) Low:

The low position can be accessed from the intermediate position by:

- Keeping your finger on the control button until the travel end stop. This position enables access to the bed without a ladder, but it is no longer possible to use the dinette area for another bed. The bed is put in its daytime position (against the ceiling) in three steps: the first two are automatic and require only a push on the control button; the last step requires continued pressure on the control button until the bed stops. This is contrary to the maneuver for descending the bed.

NB: Maximum allowed mass on the moveable bed is: electrically controlled central bed = 140cm: 230 kg and manually controlled central bed = 120cm: 150 kg. A lever to activate the system in case of total electrical failure is supplied with the bed.







■ A consulting

Do not hesitate to ask your dealer to demonstrate all these operations when you collect your camping car

HE IS A SPECIALIST!

Never force an element to put it into place.

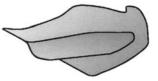
We recommend that you use Polydon type bedding including a cover sheet and a quilt exactly the same size as the bed above the driver's seat.



Be sure that the upper limit contact can operate without hindrance from covers or other objects.

If the system fails, you can adjust or manipulate the bed with a crank.

On the left side, a hump covers the hole for accessing the mechanism.





■ ELECTRIC TABLE SUPPORT

Certain of our models have an electrically driven table support.

For safety reasons, this support cannot operate unless it has been switched on by moving the key a quarter-turn to the right.

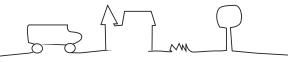
You can make this support inoperable by simply removing the key (since children might play with it).



The button upow the key allows lowering or raising the table. For greater safety, particularly when children are around, the system is equipped with an unblocking mechanism since it will block if there is resistance. Unblocking occurs when the adjustment button is turned in the opposite direction from the movement that caused blocking.

If the support must be changed for any reason, adjustments should be made by the installer before use.







■ CHEMICAL WC MODEL 0250

Watch out for the air pressure when opening the WC cassette trap, especially when travelling in the mountains. Open it then with the WC bowl lid closed. You will find below a short description on using this equipment.

Specific documentation is supplied with the camper.

The toilet has two parts: a permanently-fixed part and a waste-holding tank accessible from the outside. The removable waste-holding tank is located underneath the bowl and can be removed via a hatch on the outside of the camper.

■ Start up

- 1. Open the access hatch on the outside of your camper.
- 2. Remove the waste-holding tank by pulling the safety catch (which holds the tank in place) upwards.
- 3. Pull the waste-holding tank outwards until the end stop. Tilt it slightly and remove it completely.
- 4. Place the waste-holding tank upright and turn the rotating emptying spout upwards. The emptying spout is used to empty the tank easily and hygienically.
- 5. 1.Remove the cap (with the measuring cup inside) from the emptying spout and pour the correct dosage of Thetford toilet fluid (see product label) into the waste-holding tank. This avoids unpleasant smells and keeps the inside of the tank clean.

Next add approximately two litres of water - enough to cover the bottom of the tank completely.

Comment: never add toilet fluid directly via the blade or bowl as this could damage the lip seal on the waste-holding tank. Always pour the fluids via the emptying spout.

6. Slide the waste-holding tank back into its original position via the access hatch. Make sure that it is secured with the safety catch. Close and lock the access hatch.

■ Using the toilet (standard)

Turn the bowl to the desired position with the cover closed and using both hands.

To activate the control panel, press the flush-button once. The control panel display will stay activated for approximately 5 minutes. Run some water into the bowl by pressing the flush button again briefly.

You can use the toilet with the blade open or closed. To open







the blade, slide the blade handle under the toilet bowl sideways. After use, open the blade (if it is still closed) and flush the toilet by pressing the flush button for several seconds (if necessary re-activate the control panel). Close the blade after use.

Important notice! Please do not travel with a flush-water tank, if fitted, that is too full. Similarly, do not travel with water in the toilet bowl. Failure to comply with this notice may result in water damage to your camper.

■ Emptying

The waste-holding tank holds eighteen litres: it requires emptying when the red indicator light on the toilet control display lights up. The red light lights up when the waste-holding tank can only hold about two more litres, which is no more than two to three further uses.

Make sure that the blade is closed. Open the access hatch on the outside of your camper. Pull the safety catch on the wasteholding tank upwards and remove the waste-holding tank.

Place the waste-holding tank in an upright position (pull-out handle at the top, wheels at the bottom). Slide the handle sideways towards the front of the tank until it is released from its locked position.

Pull the handle up and wheel the waste-holding tank to an authorised waste disposal point.

Push the handle back into its locked position. Turn the emptying spout upwards and remove the cap. Hold the waste-holding tank in such a way that during emptying you can operate the vent plunger with your thumb. To empty the tank without splashing, depress the vent plunger while emptying the tank.

After emptying, rinse the tank and blade thoroughly with clean water.

Warning! Do not seriously shake the tank or use high pressure water cleaners. This could damage the inside of the tank.

Note: the vent plunger should only be depressed once the emptying spout is pointing downwards. Prepare the toilet for re-use if required. Slide the waste-holding tank into the toilet and close the access hatch.

■ Cleaning and maintenance

The toilet should be cleaned and maintained regularly, depending on the amount of use.

Note: never use bleach, vinegar or other detergents that contain these substances. These could damage the seals and other toilet components permanently.







Toilet bowl:

- Squirt a few drops of Thetford bathroom cleaner into the toilet.
- Flush the bowl with water and wipe the rest with a damp cloth.
- Clean the seat and the lid. The seat and the cover can be removed easily.
- To keep your toilet fresh and prevent deposits from forming in the bowl, add a suitable amount of Aqua Rinse into your toilet's flush water tank (if appropriate).

Tip! For a really shining toiler, wipe with a soft dry cloth after cleaning.

■ Cold weather operation

You can use your Thetford Cassette Toiler as normal in cold weather as long as it is in a heated location. Otherwise it may freeze. We advise you therefore to drain the toilet following the instructions under "Storage". It is inadvisable to use antifreeze as used in car radiators for it is not environmentally-friendly.

■ Storage

It is important that you follow the instructions below if you do not expect to use your Thetford toilet for a long period (winter).

- Activate the control panel by pressing the flush-button once. Open the blade and press the flush button until water stops flowing into the bowl. Close the blade. Open the access hatch on the outside of the camper and empty the waste-holding tank in an authorised waste disposal point. Follow the cleaning and maintenance instructions. To allow the waste-holding tank to dry rapidly, do not place the cap back on the emptying spout of the tank.

Moving the swivelling seats in the driver's cab





Some of our models feature swivelling cab seats which can be used to form an inviting front sitting area.

Having said that, rotating the driver's seat could in some circumstances require releasing the handbrake to make it easier to install the living room.



For safety reasons and before carrying out any operation, you must make sure that you can proceed in all safety:

- 1) Proceed with the engine off.
- 2) Only proceed if the vehicle is parked on level ground.
- 3) Wedge the vehicle wheels with suitable wedges and engage 1st gear.
- 4) Only now can you release the parking brake, rotate the seat, put the parking brake back on immediately and take the vehicle out of gear.

CHAP. XIII

SAFETY (Ventilation Fire Extinguisher)





■ Ventilation

Your motorhome unit is equipped with safety ventilation in compliance with current legislation. These gratings, which are usually found under the refrigerator and furniture elements and in the gas box, as well as in the access step to the unit door must never be blocked.

For your safety, it is essential to clean these grills at least once a year (blowing and brushing from outside).

■ Fire Extinguisher

Your motorhome living area is equipped with an approved fire extinguisher.

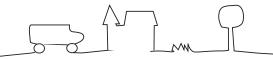
It is advisable to carry out the necessary checks to keep this device in good working order.

Control is at the discretion and under the responsibility of the motorhome owner.

■ Safety exit

Access to safety exits (windows, unit door) must always be clear of obstacles.

The safety windows must open toward the exterior or slide horizontally and provide a minimum opening of 450 mm in all directions. (EN 1646.1).





■ PRECAUTIONS AND RECOMMENDATIONS

For winter driving, and particularly for driving on snow, you should use the same rules for a camping car as for a private car, in other words drive very smoothly without sudden acceleration or braking.

In any case, your camping car will tend to hold the road better than a car, simply because it is heavier, and therefore grips the road better. It will lose its grip later than a car, but when it does skid, it will be much more difficult to control, therefore TAKE CARE.

You must put chains before driving on thick snow, but before driving on snow for the first time it is good idea to install the chains at home in peace. It can only be easier than when you really need them, often when it is snowing.

The most difficult problem to solve in the living compartment during winter use is condensation.

The keyword to prevent the condensation phenomenon is AERATION. Particularly in the winter, do not close the bottom or top aeration systems in your camping car.

Another important point for the comfort during winter use is the waste water tank which must not freeze. Add either antifreeze, or salt, or alcohol to lower the freezing point.

N.B.:

An optional heating element can be installed by your dealer.



Cleaning





■ External cleaning

To clean the body, never use a system with rollers since you run the risk of deteriorating or tearing off the ventilation structures of your mobile home.

High-pressure cleaning systems should never be used.

■ Internal cleaning

Do not use sponges with abrasive bands to clean the furniture because the furniture covering is of the "paper" type.

 \triangle

Using wallpaper is, of course, strictly forbidden.

For the floor, avoid sand which is abrasive and can damage the surface of the floor covering.

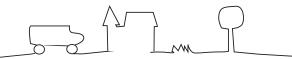
Consequently, do not allow it to enter the living compartment at all costs.

Do not use large quantities of water when cleaning the floor, since this could reduce the life of your cell (presence of wood).

The best cleaning appliance is the vacuum cleaner.

We use bay windows and panoramic skylights in methacrylate. They should be cleaned **only with soapy water and a sponge** (never use any other type of product; see Chapter V).

Cushions, curtains, etc., generally require dry cleaning.





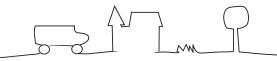
This is the period during which you no longer use your camping car.

Like any other vehicle, it tends to age much more quickly when it is not being used. Therefore, take appropriate precautions:

1) Drain all water circuits (clean water, waste water, WC toilet cassette), and your dealer will help you the first time since you need to be thoroughly familiar with your vehicle.

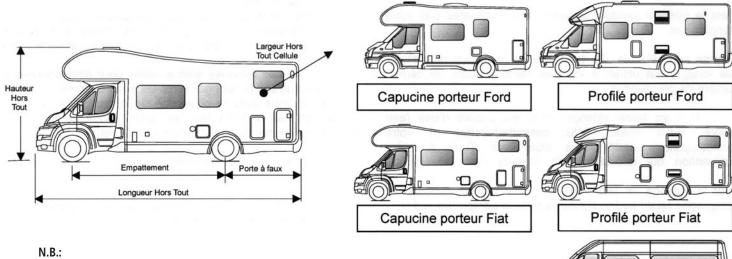
Refer to the paragraph on the pump operation (page 48) to bleed the water pump.

- 2) The gas cylinder must be closed and, ideally, removed; in this case, block the gas line. Do not forget to close all ventilation orifices so that insects cannot enter(blanking pieces available as an option).
- 3) Take the batteries out and charge them, and then store them in a dry, frost free location, unless you can leave your camping car plugged in to a 220 V mains power supply while you are not using it, to keep the batteries charged and frost free.
- 4) We suggest you install appropriate screens or plugs over the air gratings.
- 5) If the motorhome will not be used for an extended period of time, remember to ventilate it regularly.



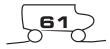


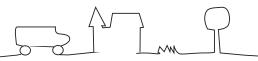
■ TECHNICAL CHARACTERISTICS DIAGRAM



- Empty weight ready for use (+/- 5%) = including driver's weight (75 kg), water, gas (1 cylinder), gasoil (90%), toilet tank / battery.
- Loaded weight = passenger weight (the 75 kg driver's weight, 68kg+7kg personal belongings, is included in the empty weight ready for use); the weight of personal belongings (clothing, food, TV, etc.); the weight of factory-installed options (i.e., side shade, bike rack, TV antenna or disc, motorcycle rack, jacks, etc.).





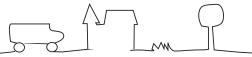




challanaar				GENESIS				
<u>challenger</u>								
		I	I	CAPUCINES	1			
CHARACTERISTICS	GENESIS 31	GENESIS 43	GENESIS 43 GF	GENESIS 51	GENESIS 59	GENESIS 63	GENESIS 65	
CARRIER	FORD TRANSIT 350M 3300	FORD TRANSIT 350L 3750	FORD TRANSIT 350L 3750	FORD TRANSIT CHASSIS 350L REAR TWIN WHEELS	FORD TRANSIT 350EL 3950	FIAT DUCATO 35L 4035	FIAT DUCATO 35L 4035	
Standard Engine	2,2L	2,2L	2,2L	2,2L	2,2L	2,3L	2,3L	
Engine power (1)	140 CH / 103Kw	140 CH / 103Kw	140 CH / 103Kw	155 CH / 114Kw	140 CH / 103Kw	130 CH / 96Kw	130 CH / 96Kw	
Approximate WEIGHT (2)								
Empty weight ready for use (+/- 5%)	2836	2846	2862	3041 / 3248	3049	2954 / 3044	2939 / 3029	
Maximum technically allowable load	3500	3500	3500	3500 / 3800	3500	3500 / 3650	3500 / 3650	
DIMENSIONS								
Overall length (excluding ladder)	5.99	6.42	6.42	7.09	7.25	6.99	6.99	
Overall height (excluding roof rack)	2.93	2.93	2.93	3.08	2.93	3.10	3.10	
Inside height	2,04/2,12	2,04/2,12	2,04/2,12	2,03/2,11	2,04/2,12	2,05/2,08	2,05/2,08	
Wheelbase	3.30	3.75	3.75	3.95	3.95	4.03	4.03	
Rear overhang (mm)	1.76	1.74	1.74	2.21	2.37	2.01	2.01	
NUMBER OF PLACES								
Seated places according to vehicle registration card without motorcycle rack (2)	4	6	6	5	5	6	6	
Dining places	4/5	5	5	5	5	4	6	
Bedding places	5	6	6	6	5	6	6-7	
OTHER EQUIPMENT								
Roof rack and foldable aluminum ladder (11kg)	0	0	0	0	0	0	0	
Coupling system (24kg)	0	0	0	0	0	0	0	
Motorcycle rack* (64kg)	•	0	0	0		0	0	

^{■ :} Not included S: Standard O: Option (1) automobile manufacturer's data (2) subject to certification *possibility of additional bedding with optional accessory.







challenger			GEN	IESIS					
		PROFILES							
CHARACTERISTICS	GENESIS 30	GENESIS 32	GENESIS 34	GENESIS 36	GENESIS 38	GENESIS 40			
CARRIER	FORD TRANSIT 350L 3750	FORD TRANSIT 350M 3300	FORD TRANSIT 350M 3300	FIAT DUCATO 35L 3800	FIAT DUCATO 35L 3800	FORD TRANSIT 350L 3750			
Standard Engine	2,2L	2,2L	2,2L	2,3L	2,3L	2,2L			
Engine power (1)	140 CH / 103Kw	140 CH / 103Kw	140 CH / 103Kw	130 CH / 96Kw	130 CH / 96Kw	140 CH / 103Kw			
Approximate WEIGHT (2)									
Empty weight ready for use (+/- 5%)	2797	2688	2766	3012 / 3032	2876	2897			
Maximum technically allowable load	3500	3500	3500	3500 / 3650	3500 / 3650	3500			
DIMENSIONS									
Overall length (excluding ladder)	5.99	5.79	5.99	6.69	6.69	6.69			
Overall height (excluding roof rack)	2.89	2.76	2.76	2.89	2.76	2.89			
Inside height	2.11	1.98	1.98	2.11	1.98	2.11			
Wheelbase	3.75	3.30	3.30	3.80	3.80	3.75			
Rear overhang (mm)	1.31	1.56	1.76	1.94	1.94	2.01			
NUMBER OF PLACES									
Seated places according to vehicle registration card without motorcycle rack (2)	4	4	4	5	4	4			
Dining places	4/5	4	4/5	5	5	5			
Bedding places	4	2/3*	3/4*	6	4	4/5*			
OTHER EQUIPMENT									
Roof rack and foldable aluminum ladder (11kg)	0	0	0	0	0	0			
Coupling system (24kg)	0	0	0	0	0	0			
Motorcycle rack* (64kg)	0	0	•	0	0	0			

^{■ :} Not included S: Standard O: Option (1) automobile manufacturer's data (2) subject to certification *possibility of additional bedding with optional accessory.



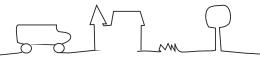




c hallenger	GENESIS							
	PROFILES							
CHARACTERISTICS	GENESIS 46	GENESIS 52	GENESIS 54	GENESIS 56	GENESIS 58	GENESIS 60		
CARRIER	FORD TRANSIT 350L 3750	FORD TRANSIT 350EL 3950	FORD TRANSIT 350EL 3950	FIAT DUCATO 35L 4035	FORD TRANSIT 350EL 3950	FORD TRANSIT 350EL 3950		
Standard Engine	2,2L	2,2L	2,2L	2,3L	2,2L	2,2L		
Engine power (1)	140 CH / 103Kw	140 CH / 103Kw	140 CH / 103Kw	130 CH / 96Kw	140 CH / 103Kw	140 CH / 103Kw		
Approximate WEIGHT (2)								
Empty weight ready for use (+/- 5%)	2887	2944	3044	3047 / 3157	3000	3041		
Maximum technically allowable load	3500	3500	3500	3500 / 3650	3500	3500		
DIMENSIONS								
Overall length (excluding ladder)	6.69	6.49	7.25	6.99	7.25	7.25		
Overall height (excluding roof rack)	2.89	2.89	2.89	2.89	2.76	2.89		
Inside height	2.11	2.11	2.11	2.11	1.98	2.11		
Wheelbase	3.75	3.95	3.95	4.03	3.95	3.95		
Rear overhang (mm)	2.01	1.61	2.37	2.01	2.37	2.37		
NUMBER OF PLACES								
Seated places according to vehicle registration card without motorcycle rack (2)	4	5	5	5	4	5		
Dining places	5	5	5	5	5	5		
Bedding places	4/5*	6	5	6	3/4*	5		
OTHER EQUIPMENT								
Roof rack and foldable aluminum ladder (11kg)	0	0	0	0	0	0		
Coupling system (24kg)	0	0	0	0	0	0		
Motorcycle rack* (64kg)	0	0	•	0		-		

^{■ :} Not included S: Standard O: Option (1) automobile manufacturer's data (2) subject to certification *possibility of additional bedding with optional accessory.



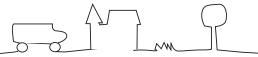




challenger	MAGEO							
	PROFILES							
CHARACTERISTICS	MAGEO 114	MAGEO 118	MAGEO 119 / MAGEO 119 EB	MAGEO 128	MAGEO 138			
CARRIER	FIAT DUCATO 35L 3800	FIAT DUCATO 35L 4035	FIAT DUCATO 35L 4035	FIAT DUCATO 35L 4035	FIAT DUCATO 35L 4035			
Standard Engine	2,3L	2,3L	2,3L	2,3L	2,3L			
Engine power (1)	130 CH / 96Kw	130 CH / 96Kw	130 CH / 96Kw	130 CH / 96Kw	130 CH / 96Kw			
Approximate WEIGHT (2)								
Empty weight ready for use (+/- 5%)	3004	3121 / 3171	M119 3153 / 3273 M119EB 3158/3278	3126 / 3166	3122 / 3172			
Maximum technically allowable load	3500 / 3650	3500 / 3650	3500 / 3650	3500 / 3650	3500 / 3650			
DIMENSIONS								
Overall length (excluding ladder)	6.69	7.39	7.49	7.39	7.39			
Overall height (excluding roof rack)	2.76	2.76	2.89	2.76	2.76			
Inside height	1.98	1.98	2.11	1.98	1.98			
Wheelbase	3.80	4.03	4.03	4.03	4.03			
Rear overhang (mm)	1.95	2.41	2.51	2.41	2.41			
NUMBER OF PLACES								
Seated places according to vehicle registration card without motorcycle rack (2)	4	4	4	4	4			
Dining places	4/5	4/5	4/5	4/5	4/5			
Bedding places	3/4*	3/4*	5	3/4*	3/4*			
OTHER EQUIPMENT								
Roof rack and foldable aluminum ladder (11kg)	0	0	0	0	0			
Coupling system (24kg)	0	0	-	0	0			
Motorcycle rack* (64kg)	0	•	-	•	-			

^{■ :} Not included S: Standard O: Option (1) automobile manufacturer's data (2) subject to certification *possibility of additional bedding with optional accessory.







<u>Challenger</u> PRIUM									
		PROFILES							
CHARACTERISTICS	PRIUM XS	PRIUM XL	PRIUM XG	PRIUM XT					
CARRIER	FIAT DUCATO 35L 3800	FIAT DUCATO 35L 3800	FIAT DUCATO 35L 4035	FIAT DUCATO 35L 4035					
Standard Engine	2,3L	2,3L	2,3L	2,3L					
Engine power (1)	130 CH / 96Kw								
Approximate WEIGHT (2)									
Empty weight ready for use (+/- 5%)	2951	3094 / 3104	3151 / 3266	3160 / 3275					
Maximum technically allowable load	3500 / 3650	3500 / 3650	3500 / 3650	3500 / 3650					
DIMENSIONS									
Overall length (excluding ladder)	5.99	6.69	7.39	7.49					
Overall height (excluding roof rack)	2.89	2.89	2.89	2.89					
Inside height	2.11	2.11	2.11	2.11					
Wheelbase	3.80	3.80	4.03	4.03					
Rear overhang (mm)	1.25	1.95	2.41	2.51					
NUMBER OF PLACES									
Seated places according to vehicle registration card without motorcycle rack (2)	4	4	4	4					
Dining places	4/6	4/6	4/6	4/6					
Bedding places	3/4*	3/4*	5/6*	5/6*					
OTHER EQUIPMENT									
Roof rack and foldable aluminum ladder (11kg)	0	0	0	0					
Coupling system (24kg)	0	0	-	-					
Motorcycle rack* (64kg)	0	0	-	-					

^{■ :} Not included S: Standard O: Option (1) automobile manufacturer's data (2) subject to certification *possibility of additional bedding with optional accessory.



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Range - Kollektion för 2012 (09/2011)



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